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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,306	10/26/2001	Lawrence J. Karr	50037.55US01	6816
27488	7590	05/24/2005	EXAMINER	
MICROSOFT CORPORATION C/O MERCHANT & GOULD, L.L.C. P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			PHU, PHUONG M	
			ART UNIT	PAPER NUMBER
			2631	

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No. 10/044,306

Applicant(s)

KARR, LAWRENCE J.

Examiner

Phuong Phu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 6-10, 16-19 and 24-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11-15, 20-23 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/25/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This Office Action is responsive to the Election filed on 4/18/05.

#### ***Oath/Declaration***

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:  
It does not identify the signature and execution date of the signature of each inventor.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 11-14, 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Takimoto (4,004,100).

-Regarding to claim 1, see figures 1, 2, 3A, 3B and col. 3, line 7 to col. 4, line 18, Takimoto discloses a method comprising:

step (24) (see figure 2) of generating a plurality of synchronization patterns (A, B, C) (see figures 3A, 3B), wherein each of the plurality of synchronization patterns differ from the other synchronization patterns by a time shift ;

step (21, 22, 23, 102) (see figures 1 and 2) of encoding an information signal (1', 2', 3') with a plurality of headers (A, B, C), each header comprising one of the plurality of synchronization patterns; and

step (102) (see figure 1)) of transmitting the encoded information signal over a communications system.

-Regarding to claim 2, Takimoto disclose that each of the plurality of synchronization patterns differs by the other synchronization patterns by (2 or 3 symbols) as a multiple of  $1/m$  of a symbol-time shift ( $m=3$ ), and wherein there are  $m$  headers, and  $m$  is any positive, non-zero integer (see figures 3B).

-Regarding to claim 3, Takimoto discloses that each of the plurality of synchronization patterns differs by the other synchronization patterns by a multiple of  $1/m$  of a symbol-time shift ( $m=2$ ), and wherein there are  $n$  headers ( $n=3$ ), and  $m$  and  $n$  are any positive, non-zero integers such that  $m$  is not equal to  $n$ .

-Regarding to claim 4, Takimoto disclose that the synchronization pattern is at least one of a random sequence, a pseudo-random sequence, and a periodic sequence (see figure 3A).

-Regarding to claims 11 and 20, see figures 1, 2, 3A, 3B and col. 3, line 7 to col. 4, line 18, as being explained in claims 1-4, Takimoto discloses a method and associated system wherein the method/system comprises:

step/means (24) (see figure 2) of generating a synchronization pattern;

step/means (21, 22, 23, 102) (see figures 1 and 2) of encoding an information signal with  $m$  headers ( $m=3$ ) to provide an encoded information signal, wherein  $m$  is a positive integer and each header comprising the synchronization pattern, wherein after the first synchronization pattern, each synchronization pattern is shifted by a fraction of a symbol-time from the other synchronization patterns; and

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step/means (102) (see figure 1) of transmitting the encoded information signal over a communication medium (109).

-Claims 12, 21 are rejected with similar reasons set forth for claims 2 and 3.

-Claim 13, 22 are rejected with similar reasons set forth for claim 4.

-Regarding to claim 14, Takimoto discloses that the synchronization pattern is a periodic sequence that is uniquely identifiable from the information signal (see figures 3A and 3B).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 15, 23 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takimoto.

-Regarding to claims 5, 15 and 23, Takimoto does not disclose that the synchronization pattern comprises a maximal-length sequence of length 15 generated by a 4-bit linear feedback shift register.

Takimoto disclose that the synchronization pattern comprises a maximal-length sequence of length 7 generated by a 3-bit linear feedback shift register.

However, using an m-bit linear feedback shift register to generates synchronization patterns which each comprises a maximal-length sequence of length  $(2^m-1)$  is well-known in the art, and the examiner takes Official Notice. (It's also recognized that Takimoto synchronization pattern is one example of them).

It would have been obvious for one skilled in the art, within his skilled and based upon his design preference, to implement Takimoto synchronization pattern as a maximal-length sequence of length 7 generated by a 3-bit linear feedback shift register so that Takimoto method/system would make unauthorized remote stations more difficult to detect the transmitted encoded information signal (because of the longer length of the synchronization pattern) in order to gain more security during the signal transmission.

-Regarding to claim 31, as being explained in claims 1, 11 and 20, Takimoto discloses a system (figure 1) of generating and transmitting encoded data wherein the system provides a synchronization pattern for use in a communications system, the encoded data structure comprising a plurality of data fields (1', 2', 3') (see figure 1) stored in a plurality of headers of a data packet to be transmitted over the communication medium (109) (see figure 1), wherein each of the plurality of data fields comprises a synchronization pattern (A, B, C) (see figures 3A and 3B), wherein each synchronization pattern differs from the other synchronization pattern by a fractional symbol-time shift.

Takimoto does not disclose that the system is a computer-readable medium.

Using a programmable processor being executed by a computer program, which is stored in the processor's memory, in order to control functions and operations of a system is well-known in the art and the examiner takes Official Notice.

It would have been obvious for one skilled in the art to implement Takimoto system with a programmable processor being executed by a computer program, which is stored in the processor's memory, in order to control functions and operations of the system so that Takimoto

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system would be enhanced in capable of programmable and high-speed operative. In such an implementation, Takimoto system then can be considered as a computer-readable medium.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (6:30-2:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Phuong Phu*

Phuong Phu  
05/19/05

**PHUONG PHU  
PRIMARY EXAMINER**

Phuong Phu  
Primary Examiner  
Art Unit 2631